various different telecommunication services. As services and service choices become more sophisticated and complex, brand and reputation are likely to increase in importance, particularly in the mass market. The costs for a consumer to switch suppliers will increase as well. Thus, investment in brand and investment in service integration are complements in what we believe to be an extremely attractive strategy for branded resellers. The basic elements of this strategy are: (1) capture initial market share by offering extremely attractive prices (made possible by taking advantage of the availability of below-cost wholesale local exchange service) and taking advantage of existing relations with customers and the reseller's national brand recognition; (2) invest heavily in brand with extensive marketing expenditures; and (3) develop more complex integrated services that increase switching costs for consumers and entry costs for competing firms.

Along these lines, IXCs have recently been involved in a wave of mergers and joint ventures that enable them to provide one-stop shopping by offering integrated packages incorporating a wide range of telecommunications and entertainment services.[34] According to Sprint CEO William Esrey, "Companies that can provide 'one-stop shopping' will fare best in the emerging marketplace."[35] The ability of the three major IXCs and other smaller companies to offer these consolidated packages, including interLATA service, is a formidable source of competitive advantage over incumbent LECs who are currently restricted from offering in-region long distance service, a critical component of any integrated telecommunications package. Examples of these alliances and packages are:

> ***AT&T*** has recently made acquisitions in wireless, Internet, and broadcast services in order to offer integrated packages of these services. For instance, AT&T offers discounts of up to 25% when long distance service is bundled with cellular and paging services. And through its WorldNet(SM) Services, AT&T is currently offering free Internet access to its long distance customers, and providing Internet services such as Easy World-Wide Web(SM)

[34] The Telecommunications Act of 1996 prohibits IXCs from formally "joint marketing" local exchange service with long distance service until the local RBOC is allowed into in region interLATA markets or 36 months after the passage of the act. Despite this statutory prohibition, there are innumerable ways that IXCs can informally cross-market and jointly brand the various services they supply. In fact, the vague provisions of the federal legislation would be almost impossible to enforce.

[35] "FCC Should Not Consider Access Charge Reform Before Local Competition Develops, Teleport Executive Says," *Washington Telecom Newswire*, December 14, 1995.

which offers AT&T's 800 and 888 customers discounts on developing an Internet presence. In addition, AT&T has aligned with DirecTV and United States Satellite Broadcasting Company to offer sales of DirecTV satellite entertainment service and DBS equipment to consumers, with special offers for AT&T long-distance and Universal Card customers. According to Robert Allen, "This announcement underscores AT&T's strategy to offer customers an innovative package of services, that include home entertainment, as well as local, long-distance, wireless and on-line services."[36]

MCI created the MCI One program, an alliance with Microsoft, Westinghouse, PointCast, Inc., PageNet, and SkyTel. MCI One offers bundled packages combining services such as long distance calling, cellular, Internet services, one number routing, home security, paging, and calling card services all on the same bill.[37] In a separate alliance with Microsoft and Digital, MCI is also offering businesses one-stop shopping in networking services to "address the growing market for 'intranet' data communications and electronic messaging services."[38]

A joint venture involving ***Sprint, TCI, Comcast, and Cox Communications, Inc.***, "will create an unprecedented communications alternative, packaging local telephone, long distance, and personal communications with cable services into a single offering for consumers and businesses.... Consumers can look forward to the widest possible array of communications and entertainment services — delivered with unsurpassed quality and with all the assurances and conveniences of a strong national brand."[39] As of May 1, 1996, Sprint's local telephone operations adopted the Sprint name. In promoting the Sprint name as a local brand, Sprint has launched a new advertising campaign featuring Candice Bergen and the pin drop, familiar icons from Sprint's long distance advertising. As was explained by Darrell Kelley, president of Sprint's local Florida operations, "In a competitive communications environment, it's important that our customers know their local telephone service provider is part of the same company that can connect them with the world seamlessly over Sprint's networks."[40]

This trend towards service integration and one-stop shopping, while initially favorable to consumers, will eventually increase barriers to entry which favor firms, such as the IXCs, with the widest array of communications service offerings. To be competitive in this type of environment, smaller companies might be forced to enter the telecommunications marketplace in multiple markets at the same time, either through multiple product offerings, or through alliances with other providers. This clearly increases the time and cost of entry. Without such a multiple

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[36] "AT&T Adds Home Entertainment to Consumer Offer," *PR Newswire*, March 25, 1996.

[37] Louise Kehoe, "Microsoft Enters Network Alliance with MCI and DEC," *Financial Times*, April 10, 1996, p. 17.

[38] Louise Kehoe, "Microsoft Enters Network Alliance with MCI and DEC," *Financial Times*, April 10, 1996, p. 17.

[39] Notice of Ex Parte Communications By Sprint in R.95-04-043/I.95-04-044, June 5, 1995.

[40] "Sprint Launches Familiar Weapon in Telecom Brand Battle; Unveils New Image Campaign for Local Division: 'Here's Where if Gets Easier,'" *Business Wire*, May 2, 1996.

market entry strategy, new entrants might be relegated to unsustainable niche positions. Because technological advantages are often viewed as a matter of lead time, even significant technological advances (that are not integrated with other services) may not be sufficient to capture share in the market — customers will wait until their service provider offers the new technology.

Given the assumptions about public policy underlying this scenario, the likely success of the IXCs' resale/marketing strategies should reduce the amount of entry by facilities-based firms as well as reducing their prospects for making substantial inroads into the local exchange mass market. Facilities-based entrants may try to exploit new technologies by developing separate infrastructure, but that strategy takes time and cedes initial market share positions to the already established IXCs. Alternatively, the facilities-based entrants may attempt a two phase strategy of acquiring initial market share through resale, while the new technology is being deployed. This strategy requires the facilities-based entrants to be at least partially successful against the IXCs' marketing and brand name strengths, an unlikely prospect.

Given the handicaps that the facilities-based firms will have under this scenario, fewer firms are likely to enter. Later entry, too, will be discouraged because of the high cost of attracting enough customers to make the facilities-based investment profitable, especially given the higher market shares IXCs are likely to have achieved as resellers, along with their increased "investments" in brand and product differentiation.

A resell/marketing path will also directly impact the investment in, and the timing and deployment of technology. Investment decisions in higher bandwidth infrastructure, for example, will depend, in part, on the market share and expected density of the customer base. To the extent that a first-mover uses the existing network infrastructure, making it difficult for later (or smaller) entrants to take away those customers, investment in new facilities will be discouraged. This, in turn, could mean that diffusion of economically preferable new technologies and infrastructure could be significantly delayed.[41]

[41] The extreme version of this scenario, under monopoly conditions, is described by Nelson and Winter, *An Evolutionary Theory of Economic Change,* Harvard University Press, 1982, p. 389, "large sheltered organizations tend to be to be and uncreative or narrowly messianic in the R&D they do, rather than ingeniously and flexibly creative. It is not just that monopoly limits the

In sum, to assess the impact of various policy alternatives (e.g., setting wholesale prices for local service below economic cost) on the success of entry by the smaller non-IXC entrants, it is necessary to understand the nature of the market competition that such a policy would unleash. If smaller, less-well-known firms were the only potential entrants, a below-cost wholesale price, for example, would make their entry easier (though it would still distort their incentives away from investing in new technology). When such entrants must compete with the major IXCs for share, as is clearly the case in this scenario, and when the IXCs also face the same price for wholesale services, the nature and outcome of competition are likely to be substantially altered. As described above, the likely outcome would be a marketing contest among major IXCs that is driven by reputation and brand assets. Marketing becomes even more critical that the IXC's are likely to be reselling the same underlying local exchange service. Thus, below-cost wholesale pricing that may have been intended to allow small entrants to flourish will have, instead, the unintended consequence of providing the major IXCs with substantial advantages against both the incumbent LECs and other competitors. In this scenario, the smaller entrants will not be likely to win a significant share of the mass market, and instead will remain focused on the multiple-line market where customers are better informed about the price and quality of various providers' services and are therefore less likely to be swayed by brand. The delivery of the benefits of new infrastructure and new technology to the mass market is then likely to be slowed.

If policy makers realistically expect the primary competition in the mass telecommunications market to include a diversity of players, it would be dangerous to promote a policy that is oriented to the entrants least likely to enter, and if they did enter, those least likely to succeed. An interconnection policy that is designed to overcome the perceived advantages of the incumbent, with the intent of allowing small and medium sized entrants to compete, may have the effect of creating advantages for large, well-heeled competitors such as AT&T to compete against the incumbent LECs. Further, limited facilities-based entry into the mass market would

sources of new ideas, but than an industry dominated by a large, secure firm is not a setting that spurs the generating and sensitive screening of good ideas.

not necessarily be competitively significant. Such entry might occur in narrow geographic or niche segments of the market that will provide little overall price or innovation pressure.

The true winners under this scenario are not likely to be the relatively unknown entrants, but the IXC entrants, such as AT&T, who have a national reputation and existing customer base. Perhaps in anticipation of such a result, AT&T's CEO, Robert Allen, has expressed supreme confidence in AT&T's prospects in the local exchange marketplace by publicly announcing,

> "[The] local services market is being opened up... Are we enthused about that? Frankly, we can almost taste it! And we think we can win at least a third of that market over the next five to ten years. We're ready to play. We're ready to win. And we don't intend to lose any time doing it. By the end of this month we will have taken the first steps to provide local services in all 50 states."[42]

The trade press is equally sanguine about the prospects for the major IXCs. According to a Chilton Research study, which was primarily based on a survey of end-user customer perceptions:

> "The most likely winners, according to the study, will be long distance carriers such as AT&T, Sprint and MCI. These companies are well-positioned because of their perceived abilities to provide higher price/value and service satisfaction."[43]

3. Efficient Competition Scenario

Successful entry into the local exchange requires access to call termination services throughout the entire network; access to rationally priced network elements and wholesale services; and relatively low switching costs for incumbent customers in at least some market segments. Under this scenario, competitively-neutral interconnection prices and nondiscriminatory access to the network neutralize the key advantages of the LECs, which are based on their prior market position. A relatively low cost for customers to switch suppliers presumes that the customer could switch without incurring significant direct (the actual cost of switching, e.g. a new phone number or the cost of installing and learning to use a new system) or

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[42] Remarks delivered at a news conference in Washington DC by Robert E. Allen, Chairman and CEO of AT&T on February 8, 1996.

[43] "Chilton Communications Study on $40 Billion Battle for Local Telephone Service." *Chilton Research Services*, March 15, 1996, p. 2.

indirect costs (e.g. the uncertainty and risk associated with obtaining critical services from a new supplier).

Along with rebalanced retail pricing, a policy that set interconnection and wholesale prices in an economically sound fashion would create a level playing field for new entrants and the incumbent LECs. As long as new entrants have nondiscriminatory access to call termination services from LECs and can lease unbundled local loops and end-office switching from the LECs at true economic costs (including the LECs' reasonable return on their investment to provide those services), both the LECs and the entrants will compete on an equal basis. Indeed, it is just these conditions that US West's Media Group has requested to enter the Atlanta market for local exchange services.

Unbundling essential network elements is sufficient to promote economically efficient entry by facilities-based entrants. Given access to these essential elements at nondiscriminatory prices, such entrants, with efficient technology, could enter the local exchange market on a relatively small scale and, if successful, expand later. Avoiding underpricing for resold services would give newly developed technologies a fair chance to succeed, mitigate some of the IXCs' existing brand and marketing advantages, and create incentives for technological innovation and deployment. As IXCs faced more serious challenges from facilities-based entrants they would be pressured to more quickly develop and deploy new technologies themselves. The net effect of marketing that emphasizes actual technological differences is that the mass market will place a greater weight on technical and innovative prowess. This in turn reduces the relative advantage that the major IXCs have versus the facilities-based entrants. Some of these facilities-based firms may be able to gain a viable share of the mass market; others, who start out with a broader target in mind, may find their technologies more suited for specialized niches and would survive by creatively (and relentlessly) seeking new applications for their innovations. In the long-run, the impact of having a larger group of firms pursuing a more diverse set of technological paths should create a more entrepreneurial market environment in which smaller firms may successfully coexist with much larger firms.

Unbundling only the essential elements needed to facilitate entry, providing these elements at a nondiscriminatory price, and providing nondiscriminatory call termination is an economically sound policy which entails a minimum amount of regulatory (and legal) intervention. It is the best policy for delivering both the price and innovation benefits of competition to consumers. Thus, in this scenario, consumers are likely to be offered services based on a broader range of technologies, the incumbent LEC will have an incentive to further invest and maintain the existing backbone infrastructure, and firms that excel in technology, as well as firms that excel in marketing, will find it profitable to serve the mass market.

4. Long-Lasting Effects of Public Policies on Market Structure

The long-term effects of the FCC's rules need to be considered, even if they are viewed only as transitional. Entry and investment possibilities will be determined by technological possibilities, the structure of the industry, and the business investments made by incumbents. Technology can be a force that changes market structure, but business strategies affect how and often whether those changes take place. How the FCC's rules affect initial entry may be very important in determining the middle and possibly long-run market structure of the telecommunications industry. Rules that are not competitively-neutral may, therefore, have middle- to long-term impacts. In markets where there are significant first-mover advantages or advantages from setting the industry standards with a dominant technology, there may be "path dependence" effects that outlast the short term regulations or market conditions that promoted the dominant technology in the first place.[44]

During the transition period, firms will build their competitive advantages vis-à-vis their direct competitors and potential entrants. Entry will become more difficult over time because

[44] In a standards setting, the classic example described by Paul David is the standard QWERTY typewriter keyboard layout which is allegedly ergonomically inferior to other designs. Paul A. David, "Clio and the Economics of QWERTY," *American Economic Review*, 75 (May 1985), pp. 332-337. The fact that so many individuals and businesses have invested in QWERTY skills and equipment, has prevented adoption of other superior technologies. "This same switch cost issue is important in other fields where product innovations are rapid." James M. Utterback, *Mastering the Dynamics of Innovation*, Harvard Business School Press, Boston, MA, p. 6. The VHS-Betamax and Windows-Macintosh contests to set the VCR and personal computer operating systems standards also reflected the force of path dependency.

competition will intensify and market participants will introduce strategies that have the effect of discouraging entry. Rules such as requiring LECs to wholesale local exchange services at below economic cost would give companies with brand name and reputation advantages, who decide to take a resale entry strategy (e.g., the major IXCs), an artificial relative cost advantage over those firms that are entering with their own facilities.

As discussed earlier, if a facilities-based entrant could offer a marginally better service at a cost equal to the actual economic cost of the LEC-provided service, that entrant should be able to compete with reseller entrants. But if the reseller can buy local service for less than economic cost, the reseller can profitably underprice the facilities-based entrant. In the initial competition to attract local service customers, the importance of technology and infrastructure competition will be reduced as facilities-based entrants will be disadvantaged relative to the reseller entrant.

In most normal market settings, firms that pursue a "differentiation strategy" usually sacrifice a cost advantage to do so. Michael Porter notes that, "...achieving differentiation will imply a trade-off with cost position if the activities required in creating it are inherently costly..."[45] If resellers are given to access artificially low cost local exchange services, however, those resellers can have both differentiation advantages and low cost advantages.

With their existing brand leverage, ability to identify high margin customers and freedom to target attractive customer segments, combined with lower costs achieved through regulatory arbitrage, the major IXCs can market and promote their way to a substantial market share. With a reduced threat of competition from new technology, the IXC entrants are likely to further stress their competitive strengths on the marketing side of the business.

Over time, some alternative technologies may emerge that will be sufficiently superior in either quality or cost to offset even the artificially low costs from below-cost wholesale prices for LEC local exchange services. Will the IXC resellers be able to hold their market share in the

[45] Michael E. Porter, *Competitive Strategy,* Free Press, 1980, p. 38.

face of this superior technology? That depends on how much future market structure and performance are influenced by which firms dominate the early stages of competition.

We believe that the reseller IXCs are quite likely to be able to maintain their initial advantages through competitive strategies designed to increase the differentiation of the companies and increase the costs for customers to change companies over time. As discussed above, an effective middle-term strategy to complement the initial acquisition of market share (through pricing, promotion and advertising) is a product development strategy that increases the functional integration of various telecommunications services offered by the IXCs. Integration of various services makes it more costly for a consumer to change to another supplier, and still maintain the same level of service integration. (This would be true even if the integration was a perceived rather than a real integration.) For example, a customer would need to find another supplier who offers the same set of integrated services, or piece together the services of two or more suppliers (probably at a higher cost and lower integration level). Thus, though the advent of integrated services is a desirable outcome, it has a potentially negative market structure effect. Switching costs will go up because it will be increasingly costly to change "integrated" carriers. Initial market shares will solidify into long-term market shares. Later entry is made more difficult because successful entry would entail offering an integrated service (which is more difficult or costly for single service companies) Gaining market share becomes more costly because of the increased customer loyalty.[46] Given these advantages and the market positions that the advantages imply, even the pace of innovation and the diffusion of innovation may be driven more by the large brand-name-advantaged firms (e.g., reseller IXCs) than smaller firms whose comparative advantage is in technology. [47]

[46] Although there is a high incidence of churn in the IXC market, only a small fraction of relatively sophisticated and high margin customers actually churn. IXCs are moving increasingly toward using term commitments in their discount reward plans to tie up high volume customers. This change in strategy is an attempt to increase switching costs, reducing direct price competition for high margin customers. IXCs are offering reward programs such as the "Sprint Sense" program which are very similar to airlines frequent flier plans. Sprint Sense gives long distance callers cash rebates if they make a term commitment by subscribing to Sprint long distance for one year.

[47] While admittedly the incumbent LECs have some of the advantages of the major IXCs, they also have substantial disadvantages. With their universal service obligation and possibly requirements to provide services or network elements at

Finally, the course of entry and market structure induced by interconnection and competition policy will also be reflected in the types of mergers, acquisitions, and joint ventures that are consummated. Partnerships that would make sense under an interconnection policy that heavily favored entry through reselling LEC services might not make sense under a policy that encouraged more facilities-based entry. Reselling strategies may, for example, involve acquisitions where brand name resources or existing customer base are the key assets to be acquired. These initial alliances will have long-run impacts on the choices available to the players in the industry both in terms of determining their firm's competencies and in terms of resources that remain available (through acquisition) in the market.

E. QUALIFICATIONS AND BIOGRAPHIES

Dr. Robert G. Harris (Ph.D., Economics, University of California at Berkeley) is Associate Professor at the Walter A. Haas School of Business, University of California, Berkeley, and a Principal in the Law and Economics Consulting Group. He has published several dozen articles and papers analyzing the effects of public policies on industry performance in telecommunications industries. He is Co-Director of the Consortium for Research in Telecommunications Policy, a collaborative program of the University of California at Berkeley, the University of Chicago, the University of Michigan and Northwestern University. He has testified before Congressional committees and numerous Federal and state regulatory agencies, and has helped to implement ground breaking regulatory reform of the railroad industry at the Interstate Commerce Commission.

Dr. Dennis A. Yao (Ph.D. Stanford University Graduate School of Business - Economics and Policy field) is Associate Professor of Public Policy and Management at the Wharton School, University of Pennsylvania, and is a Principal in the Law & Economics Consulting Group. From 1991-1994 he served as Commissioner at the U.S. Federal Trade Commission where he and his colleagues had responsibility for antitrust and consumer protection matters. He is a co-editor of the *Journal of Policy Analysis and Management,* and an associate editor of the *Journal of Industrial Economics*. Dr. Yao has published in leading economics and policy journals in the areas of antitrust, regulation, contracting, innovation and intellectual property, and in the political science and management strategy fields.

below cost, plus the need to spend money in the marketing competition against the IXCs , the LEC's abilities to invest in new infrastructure will be compromised. This may lead to reductions in the quality of the existing infrastructure as well.

EXHIBIT 2

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Price Cap Performance Review	)	CC Docket No. 94-1
for Local Exchange Carriers	)	

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January 11, 1996

TABLE OF CONTENTS

SUMMARY

In this proceeding, the Federal Communications Commission ("Commission") requests comment on the methods currently used to establish local exchange carrier ("LEC") price caps. Primarily, the Commission seeks comments on the method used to calculate LEC productivity for inclusion in the annual price cap index ("PCI") adjustment formula. This issue has been widely debated since the inception of the LEC Price Cap Plan. Various complex methodologies have been proposed in previous price cap dockets, and in each of those dockets, the Commission has faced a multitude of proposed models and dueling economists. U S WEST Communications, Inc. ("U S WEST"), proposes that the Commission make a bold move away from such unproductive debates and instead adopt a plan which simply caps LEC price cap indexes at their current levels.

U S WEST proposes this "Capped Index Plan" to simplify the process and ease the administrative and procedural burden which will surely result if the Commission's proposed TFP methodology is implemented. Competition from AT&T Corp., MCI Telecommunications Corporation, large cable operators (several in conjunction with Sprint), and competitive access providers exists now or is imminent. This competition already provides sufficient market pressure to ensure customers receive the benefits of future productivity gains through lower prices. As the current baskets and service categories will remain in place, competitors will continue to be protected from cross-subsidization. Commission resources will be conserved through the reduction in complex oversight responsibilities and the concomitant

reduction in new dockets necessary to review productivity methodologies. Market-based regulation will benefit all parties involved.

Should the Commission deem it necessary to have a PCI adjustment factor going forward, U S WEST recommends the total factor productivity ("TFP") approach developed by Christensen Associates and supported by the United States Telephone Association ("USTA"). This approach is the most sound, as it is based on publicly available data and well-supported economic theory. U S WEST also recommends multiple no-sharing X-Factors based on specific geographic characteristics and demand density of the various price cap LECs. The use of geographic and density-based factors for multiple options provides an equitable method for their selection.

Finally, in the event the Commission is unable to fully address the complex and difficult issues in this proceeding and the companion Second Further Notice, U S WEST proposes that the Commission consider using the current "interim" Price Cap Plan for an additional annual filing period while continuing to move ahead to establish an aggressive schedule to resolve pricing flexibility and other important access reform issues in 1996.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Price Cap Performance Review	)	CC Docket No. 94-1
for Local Exchange Carriers	)	

COMMENTS OF U S WEST COMMUNICATIONS, INC.

U S WEST Communications, Inc. ("U S WEST"), through counsel and pursuant to the Federal Communications Commission's ("Commission") Fourth Further Notice of Proposed Rulemaking,[1] hereby files its comments in the above-captioned proceeding.

I. THE INITIAL DEVELOPMENT OF THE LOCAL EXCHANGE CARRIER ("LEC") PRICE CAP PLAN

In 1990, the Commission instituted the LEC Price Cap Plan utilizing a methodology which established four separate "baskets" of LEC access services.[2] The four baskets which currently exist are: 1) common line; 2) traffic sensitive; 3) trunking; and 4) interexchange. The traffic sensitive and trunking baskets were

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[1] In the Matter of Price Cap Performance Review for Local Exchange Carriers, CC Docket No. 94-1, Fourth Further Notice of Proposed Rulemaking, FCC 95-406, rel. Sep. 27, 1995 ("4th FNPRM").

[2] In the Matter of Policy and Rules Concerning Rates for Dominant Carriers, Second Report and Order, 5 FCC Rcd. 6786 (1990) ("LEC Price Cap Order"), modified on recon., 6 FCC Rcd. 2637 (1991) ("LEC Price Cap Reconsideration Order"), aff'd sub nom. National Rural Telecom Ass'n v. FCC, 988 F.2d 174 (D.C. Cir. 1993).

further subdivided into "service categories." Upper and lower limits for each of the service categories were established by the Commission at the inception of the Price Cap Plan.

Pricing within the range established by the pricing bands ("inband") is presumed lawful.[3] Tariff changes for inband filings can be made on 14 days' notice with reduced cost support. Pricing which is outside of the established bands ("out-of-band") receives much closer scrutiny by the Commission.[4] Price cap indexes (or "PCI") established pricing limits for each basket; service band indexes ("SBI") established similar price band limits for each service category. Tariff prices for LEC access services were originally set within these pricing bands. For tariff changes, these upper and lower SBIs are compared to the actual SBIs calculated from the new tariff pricing to determine if the filing is inband or out-of-band.

During initial consideration of the Price Cap Plan, the Commission sought input on the methodology and calculations used to compute the basket and service category indexes.[5] The Commission recognized the possibility that, as in the early stages of any complex plan, errors could exist in either plan assumptions or specific productivity calculations.[6] For those reasons, the Commission established safety

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[3] LEC Price Cap Order, 5 FCC Rcd. at 6788 ¶ 12.

[4] Id. at 6812-13 ¶ 217.

[5] See In the Matter of Policy and Rules Concerning Rates for Dominant Carriers, Report and Order and Second Further Notice of Proposed Rulemaking, 4 FCC Rcd. 2873 (1989) ("Second Further Notice"), modified on recon., 6 FCC Rcd. 665 (1991), remanded on other grounds sub nom. AT&T v. FCC, 974 F.2d 1351 (D.C. Cir. 1992), vacated in part, 8 FCC Rcd. 3715 (1993).

[6] LEC Price Cap Order, 5 FCC Rcd. at 6801 ¶ 120.

mechanisms or "backstops" to respond to such potential errors while still achieving the goals of price cap regulation. These backstops took the form of mandatory "sharing" of returns above a certain level and a "low-end adjustment" which raised PCIs if returns were below a certain level.

The Commission also established a methodology to annually adjust the various basket and service category indexes for the impact of inflation and productivity gains in the LEC industry -- the PCI adjustment factor. The current PCI adjustment factor is calculated using a formula which offsets U.S. economy inflation (i.e., the Gross Domestic Product Price Index ("GDP-PI")) by a productivity offset, or "X-Factor," plus exogenous cost adjustments.

Since the inception of price caps five years ago, the selection of an appropriate X-Factor has been contentious, mainly because the X-Factor is based on complex, controversial, and somewhat subjective economic models which attempt to measure the difference between the productivity of LECs and the productivity of other industries as a whole. There is no longer a need to continue this unproductive debate because a much simpler plan is available to the Commission.

II. THE COMMISSION SHOULD ABANDON THE CURRENT COMPLEX AND INEFFICIENT PRICE CAP SCHEME AND INSTEAD SIMPLY CAP LEC PRICE CAP INDEXES AT THEIR CURRENT LEVELS

Instead of continually trying to "tweak" the current plan with its complex formulas and methodologies for calculating productivity differences, the Commission should move instead to establish a plan which vastly simplifies the

process. As demonstrated by the following, sufficient competition exists now or is impending which mitigates the need for further artificial adjustments:

- Competition in the local exchange is imminent from the two largest interexchange carriers ("IXC"), AT&T Corp. ("AT&T") and MCI Telecommunications Corporation.
- Large cable multiple system operators (several in partnership with Sprint Corporation, the third largest IXC) are beginning to provide telecommunications service and plan to expand their offerings to include competitive data communications products.
- Large competitive access providers ("CAP") are already firmly established in many large markets.
- Statutory barriers to competition are rapidly being removed.[7]

It is time for the Commission to make a bold move away from inefficient and complex regulatory schemes to simpler, market-regulated approaches. U S WEST proposes that the Commission adopt a plan which simply caps the LECs' PCIs at their current levels.

Under U S WEST's proposed "Capped Index Plan," no going-forward adjustments to the Price Cap Plan or its components by the Commission would be required. This would eliminate the need for future price cap dockets replete with complex models and "dueling economists." No artificial safeguards, in the form of sharing or low-end adjustments, would be available or required. No further adjustments to the PCIs would be made for inflation, productivity, or exogenous

[7] Attached as Exhibits 1a and 1b are matrices which show CAPs and the status of local exchange competition by state in U S WEST's region.

costs. The Capped Index Plan better emulates a competitive market as the risks and rewards are determined by market conditions and the overall economy.[8]

The Capped Index Plan eliminates the need for continued index adjustments and productivity calculations by the LECs. The Commission's tariff filing oversight burdens would also be reduced significantly. The Commission could move valuable staff resources to other important and emerging issues. Competitors would continue to be protected from cross-subsidization by "capped" price cap basket indexes. And, most importantly, consumers would benefit from continued competitive pressure to move prices down.

Competition is alive and thriving in all price cap LECs' territories. The time is right for the Commission to move away from the current archaic and cumbersome price cap methodology. As noted previously, competitors entering the LECs' markets are not small players, and they do not require nor should be provided an unfair competitive advantage by restraining the LECs through the imposition of overly burdensome price cap provisions and debates. The going-forward use of artificial adjustments in the LEC Price Cap Plan will only further distort the interstate access marketplace. The Commission should move immediately to establish the Capped Index Plan for the price cap LECs.

[8] In supplemental comments to the LEC Price Cap Order, AT&T proposed a similar "pure" price cap system which it referred to as its "simple" plan. See LEC Price Cap Order, 5 FCC Rcd. at 6796 ¶ 80. The simple plan would have frozen LEC prices over a four-year period with no additional adjustment mechanisms or sharing.

III. IF A PCI ADJUSTMENT FACTOR IS DEEMED ESSENTIAL, THEN THE COMMISSION SHOULD USE A TOTAL FACTOR PRODUCTIVITY- ("TFP") BASED PRODUCTIVITY FACTOR

U S WEST urges the Commission to adopt the Capped Index Plan proposed in the previous section. However, if a PCI adjustment factor is deemed necessary or essential by the Commission, then U S WEST recommends the adoption of one which is based on a TFP approach.[9]

A TFP-based proposal was developed in a study performed by Christensen Associates ("Christensen") and placed in comments filed by the United States Telephone Association ("USTA") in the last round of price cap proceedings.[10] The Commission tentatively concluded in its First Report and Order that the TFP method should be used to calculate the X-Factor.[11] To the extent that a PCI adjustment factor is deemed necessary, U S WEST supports the Commission's tentative conclusions. To calculate LEC TFP going forward, the Commission should

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[9] In its simplest form, TFP is a ratio of total output to total input, where total output includes all services provided by an industry -- in this case the LECs -- and total input includes the capital, labor, and materials necessary to provide those services. LEC outputs include: local service, interstate end user access, interstate switched access, interstate special access, intrastate access, long distance service, and miscellaneous services.

[10] See 4th FNPRM ¶¶ 22-23. See Comments of the United States Telephone Association, filed herein May 9, 1994 at Attachment 6, Productivity of the Local Telephone Operating Companies by Lauritis R. Christensen, Philip E. Schoech and Mark E. Meitzen ("Original Christensen Study").

[11] The X-Factor represents LEC productivity in the PCI adjustment calculation. In the Matter of Price Cap Performance Review for Local Exchange Carriers, First Report and Order, 10 FCC Rcd. 8961, 9026-27 ¶ 145 (1995) ("First Report and Order"), pets. for recon. pending and appeals pending sub nom. Bell Atlantic Telephone Companies, et al. v. FCC, Nos. 95-1217, et al. (D.C. Cir. pet. for rev. filed Apr. 19, 1995). 4th FNPRM ¶ 9.

utilize the new, simplified TFP approach developed by Christensen ("Simplified TFP") and proposed by USTA in the instant proceeding.[12]

The Simplified TFP approach uses data sources which are publicly available and easily verifiable and supports the criteria specified by the Commission for the development of an appropriate X-Factor.[13] Consistent with the Simplified TFP approach, U S WEST proposes that the LEC TFP be calculated on a total company basis using annually updated five-year rolling averages.

The Commission has also tentatively concluded that it is appropriate to include an input price differential in a TFP-based X-Factor.[14] While U S WEST believes that over the long term the input price differential ("IPD") between LECs and the rest of the economy will be zero, the inclusion of a short-term IPD arguably achieves the Commission's goal that gains by LECs in reducing unit costs are passed through to consumers. Therefore, U S WEST supports the Commission's proposed use of a short-term IPD in calculating the X-Factor if a PCI adjustment factor is deemed essential.

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[12] See Attachment 1, Total Factor Productivity Methods for Local Exchange Carrier Price Cap Plans, by Lauritis R. Christensen, Philip E. Schoech and Mark E. Meitzen, dated Dec. 18, 1995 ("Christensen Study").

[13] 4th FNPRM ¶ 16 ("[T]he X-Factor should be economically meaningful . . . ensure that ongoing gains by the LECs in reducing unit costs are passed through to consumers . . . calculation of the productivity offset should be reasonably simple and based on accessible and verifiable data.").

[14] First Report and Order, 10 FCC Rcd. at 9033 ¶ 161.

IV. IF A PCI ADJUSTMENT FACTOR IS DEEMED APPROPRIATE, THEN MULTIPLE OPTIONS BASED ON GEOGRAPHIC DENSITY MUST BE AVAILABLE

U S WEST's proposed Capped Index Plan would eliminate the going-forward need for any artificial correction or safety mechanisms such as productivity factors, sharing and low-end adjustments. However, if the Commission adopts a plan which includes a TFP-based, annually updated productivity measurement for use by all price cap companies, the serving area size, geography, and demographics (including the demand density) of companies must be considered and multiple options for productivity based on such factors allowed. These geographic factors have a large impact on the overall unit costs and, thus, on the productivity of various LEC companies.

U S WEST supports multiple no-sharing X-Factor options based upon economies of density. Economies of density are demonstrated when the addition of minutes or lines to existing facilities reduces their overall average cost, spreading the fixed cost over additional units of output. Economies of density result from the ability to spread additional capital investment and expense over increasing volumes on given routes, thus lowering the cost-per-unit of services. The Commission has recognized that the heterogeneity of the industry drives the costs and behavior of not only the incumbent LECs, but also of competitors which enter specific geographic areas based on measurable density factors.

The Commission should adopt multiple no-sharing X-Factors based on the geographic nature of LECs' serving territories. These factors should not be specifically tailored to individual LECs, but should be industry wide. The Commission should use simple criteria based on publicly available data to establish a threshold below which a LEC would qualify for a no-sharing X-Factor that is lower than the baseline factor calculated using the Simplified TFP method.

V. THE COMMISSION SHOULD CONSIDER USING THE INTERIM PLAN FOR AN ADDITIONAL YEAR

In the event the Commission is unable to fully and appropriately address the complex and difficult issues presented in this proceeding and in the 2nd FNPRM,[15] U S WEST proposes that the Commission consider using the "interim" Price Cap Plan established by the First Report and Order for an additional year.[16] This would enable the Commission to provide LECs and their customers with a modicum of near-term pricing stability while allowing for a smoother and more predictable transition to U S WEST's proposed Capped Index Plan or another newly selected price cap methodology.

Deferring the use of a new methodology would also give the Commission additional time to effectively analyze the Capped Index Plan and other

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[15] In the Matter of Price Cap Performance Review for Local Exchange Carriers, Treatment of Operator Services Under Price Cap Regulation, Revisions to Price Cap Rules for AT&T, CC Docket Nos. 94-1, 93-124, 93-197, Second Further Notice of Proposed Rulemaking in CC Docket No. 94-1, Further Notice of Proposed Rulemaking in CC Docket No. 93-124, and Second Further Notice of Proposed Rulemaking in CC Docket No. 93-197, FCC 95-393, rel. Sep. 20, 1995 ("2nd FNPRM").

[16] First Report and Order, 10 FCC Rcd. at 9054-59 ¶¶ 210-224.

recommended approaches and the associated study data in a fully developed record. This extra time would be beneficial in the determination of the most appropriate plan based upon rapidly changing markets and would aid the industry in the transition to any new plan. The Commission should consider a one-year extension of the interim plan for use in the 1996 Annual Access Tariff Filing. The new plan would then be effective for the 1997 Annual Filing. At the same time, however, the Commission must continue to move ahead to establish an aggressive schedule to resolve pricing flexibility and other important access reform issues in 1996.

VI. RESPONSES TO COMMISSION SPECIFIED X-FACTOR ISSUES

U S WEST recommends that the Commission adopt its proposed Capped Index Plan and eliminate the need for further complex productivity debates. However, should the Commission choose to require future productivity measurements for inclusion in a PCI adjustment, then U S WEST supports the TFP methodology developed by Christensen and proposed by USTA. U S WEST provides the comments below in response to the specific TFP calculation-related issues raised by the Commission.

A. X-Factor Calculation

Issue 1a: *What is the most reasonable method to develop output price indices for TFP calculation purposes? What data sources should be used to develop output price indices?*